



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,611	04/16/2004	Wolfgang Gawrisch	HENK-0069/H 4842	1188
38857	7590	11/05/2004		
WOODCOCK WASHBURN LLP ONE LIBERTY PLACE, 46TH FLOOR PHILADELPHIA, PA 19103				
EXAMINER PEZZUTO, HELEN LEE				
ART UNIT		PAPER NUMBER		
1713				

DATE MAILED: 11/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/826,611

Applicant(s)

GAWRISCH ET AL.

Examiner

Helen L. Pezzuto

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 5-21 is/are rejected.
- 7) ☒ Claim(s) 2 and 4 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/25/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claims 1-21 are currently pending in this application.

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 8/23/04 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3, 6, and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 3, the XR^N substituent is designated for Z^2 in claim 1. Please clarify and make the necessary correction.

In claim 6, what are the metes and bounds of "other than NR" or NR^N ? Do applicants intend the remaining NR recited in claim 1? Please clarify.

In claim 10, the recited molecular weight is indefinite. The examiner suggests defining it by one of the standard types (i.e. Mw, Mn, etc).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 3, 7-8, 10, 13-14, and 17-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Pechhold et al. (US-493).

US 5,945,493 to Pechhold et al. discloses a stain and soil resistance composition, comprising a water soluble fluorine-containing maleic acid terpolymer as defined by formula I. Specifically, prior art f unit embraces the instant structural unit (I) or monomer (III), and the

Art Unit: 1713

corresponding d, e units embrace the instant structural element (II) or monomer (V). The embodiment as defined in claim 3 is exemplified and thus, is anticipated (col. 1, lines 33-67; col. 3, lines 12-67; working examples). The recited molar proportions expressed in claim 8 and the molecular weight expressed in claim 10 is taught in the reference (col. 3, lines 3-12; working examples). Prior art discloses applying 0.3-3.0% of active ingredients in an aqueous terpolymer solution to fiber/fabric, inclusive of natural and synthetic fibers (col. 2, lines 19-29; col. 4, lines 44-51; col. 5, lines 6-32), and subsequently drying the coating by thermal means (col. 5, application methods), thus, anticipating the limitations expressed in claims 13-14, and 17-21.

5. Claims 1, 6-9, 13-14, and 16-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Soane et al. (US-336).

US 6,380,336 to Soane et al. discloses an oil and water repellent composition applicable to textiles/fibrous substrates, comprising a fluorine-containing copolymer. Prior art copolymer comprises one or more a fluorochemical component inclusive of 30-70 wt% of one or more fluoroaliphatic radical-containing (meth)acrylates as defined by formula I, which falls within the scope of the

Art Unit: 1713

instant structural element (II) or monomer IV (col. 2, line 66 to col. 3, line 36). Among others, prior art copolymer contains monomer (d), inclusive of dicarboxylic acids/anhydrides such as maleic acid/anhydride and others which embrace the instant structural element (I) or monomer (III) (col. 3, lines 45-59). Prior art composition comprises 3% of the resulting copolymer, and water (col. 4, lines 8-44), and further teaches the application of the composition to various fibrous substrates, inclusive of those presently recited (col. 4, line 58 to col. 5, line 47; working examples 4-5). Thus, anticipating the present claims.

6. Claims 1, 5, 8-9, 13, 16-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Wang et al. (US-421).

US 6,503,421 to Wang et al. discloses a process of making an optical terpolymer, comprising 10-90 wt% of a halogenated phenyl maleimide (I), one or more halogenated monomer (II), and one or more ethylenically unsaturated monomer (III) (col. 2, lines 33-60; col. 4, lines 1-31; (col. 5, line 20 to col. 6, line 27). Prior art monomers (I), (II), and (III) reads on the instant structural elements (I), (IV), and (II) or monomers (III), (IV) and (V), respectively as defines in the present claims (col. 7-

Art Unit: 1713

8, Table 5; working example 1-3; col. 13, lines 1-26). The reference teaches spin coating the resulting terpolymer composition onto a silicon wafer, meeting the limitations expressed in claims 17-19. Thus, anticipating the present claims.

7. Claims 1, 5, 7-9, 11, 13-14, and 17-21 are rejected under 35 U.S.C. 102(b) as being anticipated by CA 942900.

CA 942900 discloses polymers having enhanced soil repellent properties and utility as surface treating agents for textiles, and leather and others. Prior art polymer comprises unsaturated perfluoroalkylamides or imides polymerized with other vinyl monomers (page 1, line 1 to page 2, line 22; page 3, lines 13-25). Suitable vinyl comonomers are disclosed, including monomers that embrace the instant structural element (II) and (IV) (page 4, line 22 to page 6, line 29). Prior art exemplifies copolymers derived from perfluoroalkyl imides and perfluoroalkyl (meth)acrylates (pages 11-14, examples 7-21; Table 1), and the subsequent application to fibrous substrates. Hence, anticipating the present claims.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 3, 7-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubo et al. (US-175).

US 5,883,175 to Kubo et al. discloses a stain proof composition comprising a polymer emulsion suitably use on fibrous materials. Prior art polymer emulsion comprises the polymerized product of at least one polyfluoroalkyl-group compound, inclusive of polyfluoroalkyl (meth)acrylate defined in formula (1) or polyfluoroalkyl maleate defined in formula (3), dissolved in an unsaturated monomer (col. 1, lines 10-21; col. 2, line 28 to col. 3, line 57; col. 4, line 12 to col. 5, line 53). Prior art emulsion has molecular weight which falls within the present range. Suitable substrate to be treated includes textiles derived from natural and synthetic fibers (col. 5, line 65 to col. 6, line 10). Prior art perfluoroalkyl (meth)acrylate (1)

Art Unit: 1713

and fluoroalkyl maleate (3) encompass the presently claimed elements (I) and (IV), and the monomer disclosed encompass the instant element (II). Prior art does not expressively exemplify the embodiment of (I)/(II) and/or (I)/(IV) within the scope of the present claims, but do teaches the equivalence or altercative use of (I) and (IV). The examiner is of the position that it would have been obvious to one skilled in the art to employ both for the expected additive result in light of their having been taught as suitable alternatives by the patentees. Absent evidence of unexpected results, no patentability can be seen in using a mixture of two elements wherein each is used for the same purpose by the prior art.

10. Claims 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pechhold et al. (US-493) for the reasons set forth above and further in view of the following.

US-493 discloses a terpolymer having molecular weight within the scope of the present copolymer, but do not expressly exemplify the polydispersity expressed in claim 12. The examiner is of the position that a polydispersity of less than 7 would be expected in prior art terpolymer, in light of the closely overlapped molecular weight and method of preparation because polydispersity is defined by

Art Unit: 1713

the ratio of Mw/Mn. Prior art is silent regarding the "drop wise" addition expressed in claim 15. Absent evidence of unusual or un expected results, the examiner is of the position that drop wise addition of monomers would be an obvious variation insofar as there are only a limited number of conventional ways of adding ingredients, and drop wise addition is one of them.

11. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Soane et al. (US-336) for the reasons stated and further in view of the following.

As stated in the preceding paragraph, the reference is silent regarding the "drop wise" addition expressed in claim 15. Absent evidence of unusual or unexpected results, the examiner is of the position that drop wise addition of monomers would be an obvious variation insofar as there are only a limited number of conventional ways of adding ingredients, and drop wise addition is among one of them. Such practice would only require routine skill in the art.

Allowable Subject Matter

11. Claims 2 and 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in

Art Unit: 1713

independent form including all of the limitations of the base claim and any intervening claims.

The specific embodiments as defined in claims 2 and 4 are not fairly suggested or disclosed in prior art of record.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen L. Pezzuto whose telephone number is (571) 272-1108. The examiner can normally be reached on 8 AM to 4 PM, Monday thru Friday.

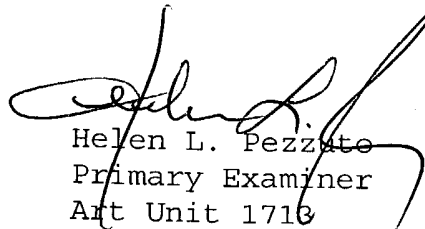
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/826,611

Page 11

Art Unit: 1713



Helen L. Pezzato
Primary Examiner
Art Unit 1713

hlp